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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

PHAM, HAI CHI

ART UNIT	PAPER NUMBER
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2861

DATE MAILED: 04/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/817,895

Applicant(s)

ONODERA ET AL.

Examiner

Hai C Pham

Art Unit

2861

-- Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 January 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15-55 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 15-18, 20, 21, 23, 26 and 31-55 is/are rejected.
- 7) ☒ Claim(s) 19, 22, 24, 25 and 27-30 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 20 is objected to because of the following informalities:

- “ATIP” should read --Absolute Time in Pre-groove (ATIP)--.

Appropriate correction is required.

Duplicate Claims Objection

2. Claims **32** and **53** are objected to under 37 CFR 1.75 as being a substantial duplicate of claims **15** and **52**, respectively. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k). The base claims 15 and 32 respectively claim “an information recording system” and “an information recording apparatus”, each being defined by the same and exact limitations such that there is no clear distinction between the system and the apparatus.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 2861

4. Claims 15-47, 52-54 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 15, 32, 47, 48:

- Each of the base claims 15, 32, 47 and 48 recites more or less the following limitation “for forming a visible image pattern ... to generate a change in optical characteristic of said recording layer between a portion where pits are formed with the light and a pit-less portion where pits are not formed” appears to be unclear in that it is known whether the “change in optical characteristic of said recording layer” is generated at a space “between a portion where pits are formed with the light and a pit-less portion where pits are not formed” (which is unlikely) or the formation of the visible image is being performed based on the generation of the change in optical characteristic of the recording layer due to the formation of pits as compared to the area where no pits are formed. The examination of the current application will be based on the second assumption.

Claim 33:

- The phrase “and/or” renders the claim indefinite because the claim does not clearly set forth the metes and bounds of the claimed invention, thereby rendering the scope of the claim unascertainable.

Claims 16-31, 34-46, 49-55 are dependent from claims 15, 32, 47, 48 above, and are therefore indefinite.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

6. Claims 15-18, 21, 26, 31-37, 42-55 are rejected under 35 U.S.C. 102(b) as being anticipated by Nomula et al. (U.S. 4,967,286).

Nomula et al. discloses a method and apparatus for forming a digital image on an optical recording medium, the apparatus comprising a driving component (mastering turntable 32) for driving the optical recording medium, and a writing component (laser 38) for forming a visible image pattern (18) by irradiation of light (laser beam) on a recording layer formed in the optical recording medium to generate a change in optical

Art Unit: 2861

characteristic of said recording layer between a portion where pits are formed with the light and a pit-less portion where pits are not formed (the visible image 18 being formed by generating pits 26 on a background of pit-less reflecting surface 24, the pits creating visual effect, which contrasts markedly against the specular reflecting surface, e.g. difference in reflectance) (col. 3, lines 1-28). With regard to claim 47, Nomula et al. teaches a program for executing the image pattern writing for forming a visible image pattern on a recording layer of the medium through irradiation of the laser beam.

With regard to claim 17-18, 21, 26, 31, 33-37, 42-45, 50-55, Nomula et al. further teaches:

- a data generating component for generating data of the visible pattern, wherein the writing component modulates the light (via E/O modulator 36) based on image pattern data generated by said data generating component and irradiates the modulated light on the recording layer (col. 4, lines 54-68),
- an editing component for editing the image pattern data (col. 5, lines 14-16 and 38-40) (Fig. 7),
- the editing component changing a size of the image pattern data (col. 6, lines 59-61),
- the writing component being commonly used for recording data of the visible image pattern and for recording of recordable data other than the data of the visible image pattern into the recording area of the optical recording medium (col. 3, lines 25-28),
- a display component (video monitor 46),

- the visible image pattern being constituted by any characters, signs (18, Fig. 1),
- 34 the image pattern being recorded in an unrecordable area (image surface area 16) of the optical recording medium,
- the recording medium being a recordable optical disc (CD), which is readable by a disc player (the apparatus being used for recording audio information in the recording area 12 of the CD, which inherently can be played back on any conventional disc player),.

7. Alternatively, claims 15-17, 26, 52, 32-33, 53, 48-50, 55 are rejected under 35 U.S.C. 102(e) as being anticipated by Kobayashi et al. (U.S. 6,088,323).

Kobayashi et al. discloses an optical disk recording method and apparatus, which comprises comprising a driving component (4) for driving the optical recording medium, and a writing component (laser 7) for forming a visible image pattern (Fig. 8) by irradiation of light (laser beam) on a recording layer formed in the optical recording medium to generate a change in optical characteristic of said recording layer between a portion where pits are formed with the light and a pit-less portion where pits are not formed (col. 10, lines 13-32).

Kobayashi et al. further discloses a data generating component (51), the writing component being commonly used for recording data of the visible image pattern and for recording of recordable data other than the data of the visible image pattern into the recording area of the optical recording medium, and the recording medium being a recordable optical disc, which is readable by a disc player (the apparatus being used for

recording audio information in the recording area of the CD, which inherently can be played back on any conventional disc player).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 20, 23, 38-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nomula et al. in view of Koyata et al. (U.S. 6,392,964 B1).

Nomula et al. discloses all the basic limitations of the claimed invention except for the reading component for optically reading information already recorded in the recording layer such and the editing component automatically editing the image pattern data based on a table of contents, and the detection component for detecting the unrecorded area.

Koyata et al. discloses a digital recording/reproducing apparatus comprising a recording means for rewriting programs and character symbols recorded on a recording medium, which has a program area for recording programs and a management area for managing a plurality of character symbols corresponding to the programs. The apparatus further includes a data generating part for generating data of an image pattern, and an editing part for editing image pattern data generated by said data generating part (col. 9, lines 13-47), a display part for displaying a simulation of said

Art Unit: 2861

image pattern based on image pattern data edited by the editing part (col. 7, lines 29-45), a reading part for optically reading information already recorded in the recording layer of the optical recording medium (the U-TOC area), such that the data generating part generates the image pattern data based on table of contents information data (U-TOC) having character or symbol information among information read by the reading part (col. 9, line 49 to col. 11, line 20), and the writing part performing both writing for forming the image pattern (character symbols) and normal information writing (in the program area of the recording medium).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the device of Nomura et al. with the aforementioned teaching of Koyata et al. for the purpose of rewriting information data and character symbols as read from the master disk.

Allowable Subject Matter

10. Claims 19, 22, 24-25, 27, 29-30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. Claims 19, 22, 24-25, 27-30 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the primary reason for the indication of the allowability of the claimed invention,

Art Unit: 2861

with respect to claims 19, 22, 24-25, is the inclusion of the limitation, in the combination as currently claimed, that the editing component detects an unrecorded area in the recording layer based on information read by the reading component and automatically edits the image pattern data generated by the data generating component so that the image pattern matches with the detected unrecorded area, and which is not found taught or fairly suggested by the prior arts made of record, considered alone or in combination.

The primary reason for the indication of the allowability of the claimed invention, with respect to claim 27, is the inclusion of the limitation, in the combination as currently claimed, that the writing component of the information recording system is adapted to enlarge a spot size of the light when recording the visible image pattern from the spot size used when recording recordable data other than the data of the visible image pattern, and which is not found taught or fairly suggested by the prior arts made of record, considered alone or in combination.

The primary reason for the indication of the allowability of the claimed invention, with respect to claims 28-29 is the inclusion of the limitation, in the combination as currently claimed, that the writing component comprises a first writing component for recording of the data of the visible image pattern onto the unrecorded area of the optical recording medium and a second writing component for recording of recordable data other than the data of the visible image pattern onto the unrecorded area of the optical recording medium, wherein the first and second writing components are adapted to

Art Unit: 2861

operate independently, and which is not found taught or fairly suggested by the prior arts made of record, considered alone or in combination.

The primary reason for the indication of the allowability of the claimed invention, with respect to claim 30, is the inclusion of the limitation, in the combination as currently claimed, that the writing component of the information recording system is adapted to form an image pattern having a plurality of gray scale levels through provision of different sizes of the pits or different distances between adjacent ones of the pits, and which is not found taught or fairly suggested by the prior arts made of record, considered alone or in combination.

Response to Arguments

12. Applicant's arguments with respect to claims 15-18, 20-21, 23, 26, 31-55 have been considered but are moot in view of the new grounds of rejection presented in this Office action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai C Pham whose telephone number is (703) 308-1281. The examiner can normally be reached on T-F (8:30-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Benjamin R. Fuller can be reached on (703) 308-0079. The fax phone numbers for the organization where this application or proceeding is assigned are (703)

Art Unit: 2861

308-7722, (703) 308-7724, (703) 308-7382, (703) 305-3431, (703) 305-3432 for regular communications and for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



HAI PHAM
PRIMARY EXAMINER

April 1, 2003